

IN THE CLAIMS:

Please amend the claims as follows:

Claims 1-31 have been cancelled, please add new claims 32-64.

32. (new) An energy management device for use in an energy management architecture for managing the flow of energy in an energy distribution system, said energy management architecture comprising a network, said energy management device comprising:

a sensor coupled with said energy distribution system and operative to measure an energy parameter from said energy distribution system;

a processor coupled with said sensor and operative to generate power management data based on said measured energy parameter;

a security module coupled with said processor and operative to encrypt said power management data wherein said encrypted power management data comprises first and second portions, said first portion associated with a first decryption key and said second portion associated with a second decryption key, such that said first portion is capable of being decrypted only with said first decryption key and said second portion is capable of being decrypted with said second decryption key; and

a network interface coupled with said processor and said network and operative to facilitate communications of said encrypted power management data over said network.

33. (new) The energy management device of claim 32, wherein said energy distribution system comprises an electrical power distribution network.

34. (new) The energy management device of claim 32, wherein said first portion includes said second portion.

35. (new) The energy management device of claim 32, wherein said first portion comprises billing data and said second portion comprises power quality data, wherein said first decryption key is associated with a billing department wherein said billing

department has said first decryption key to decrypt said billing data and said second decryption key is associated with a utility wherein said utility has said second decryption key to decrypt said power quality data.

36. (new) The energy management device of claim 32, wherein said power management data is communicated over said network.
37. (new) The energy management device of claim 32, wherein said network interface is further operative to wirelessly couple said processor with said network.
38. (new) The energy management device of claim 32, wherein said communications of said encrypted power management data comprise at least one of electronic mail, HTTP, FTP, telnet, NNTP or XML.
39. (new) The energy management device of claim 32, wherein said security module comprises prime number based encryption.
40. (new) The energy management device of claim 32, wherein said security module is further operative to receive a power management command from said network, wherein said power management command comprises first and second command portions, said first command portion associated with a first command decryption key and said second command portion associated with a second command decryption key, such that said first command portion is capable of being decrypted with said first command decryption key and said second command portion is capable of being decrypted with said second command decryption key.
41. (new) The energy management device of claim 40, wherein said first command portion includes said second command portion.
42. (new) The energy management device of claim 41, wherein said security module further comprises at least one of said first and second command decryption keys for decrypting said power management command.
43. (new) The energy management device of claim 32, wherein said security module is further operative to transmit a power management command over the network,

wherein said power management command comprises first and second command portions, said first command portion associated with a first command decryption key and said second command portion associated with a second command decryption key, such that said first command portion is capable of being decrypted with said first command decryption key and said second command portion is capable of being decrypted with said second command decryption key.

44. (new) The energy management device of claim 43, wherein said first command portion includes said second command portion.

45. (new) An energy management device for use in an energy management architecture for managing the flow of energy in an energy distribution system, said energy management architecture comprising a network, said energy management device comprising:

a processor coupled with said energy distribution system and operative to process externally generated power management data;

a security module coupled with said processor and operative to receive said externally generated power management data from said network wherein said externally generated power management data comprises first and second portions, said first portion associated with a first decryption key and said second portion associated with a second decryption key, such that said first portion is capable of being decrypted only with said first decryption key and said second portion is capable of being decrypted with said second decryption key; and

a network interface coupled with said processor and said network and operative to facilitate communications of externally generated power management data over said network.

46. (new) The energy management device of claim 45, wherein said energy distribution system comprises an electrical power distribution network.

47. (new) The energy management device of claim 45, wherein said first portion includes said second portion.

48. (new) The energy management device of claim 45, wherein said network interface is further operative to wirelessly couple said processor with said network.
49. (new) The energy management device of claim 45, wherein said communications of said externally generated power management data comprise at least one of electronic mail, HTTP, FTP, telnet, NNTP or XML.
50. (new) An energy management device for use in an energy management architecture for managing the flow of energy in an energy distribution system, said energy management architecture comprising a network, said energy management device comprising:

an energy distribution system interface coupled with said energy distribution system and operative to perform first and second power management functions with respect to said energy distribution system, said first power management function being associated with a first authentication key and said second power management function being associated with a second authentication key;

a network interface coupled with said network and operative to facilitate communications thereover;

a security module coupled with said network interface and operative to receive a power management command from said network, said power management command operative to instruct said energy distribution system interface to perform at least one of said first power management function, said second power management function, or combinations thereof; and

a processor coupled with said security module and said energy distribution system interface and operative to respond to said power management command to cause said energy distribution system interface to perform said first power management function if said power management command includes said first authentication key and cause said energy distribution system interface to perform said second power management function if said power management command includes said second authentication key.

51. (new) The energy management device of claim 50, wherein said energy distribution system comprises an electrical power distribution network.
52. (new) The energy management device of claim 50, wherein said network interface is further operative to wirelessly couple said processor with said network.
53. (new) The energy management device of claim 50, wherein said power management command communicated from said network comprises at least one of electronic mail, HTTP, FTP, telnet, NNTP or XML.
54. (new) The energy management device of claim 50, wherein said first power management function is operative to adjust billing information on said energy management device and said second power management function is operative to perform a demand reset of said energy management device, and further wherein said first authentication key is originated from a billing department and said second authentication key is originated from a utility.
55. (new) The energy management device of claim 50, wherein said first and second power management functions comprise measuring an energy parameter and generating power management data based on said parameter.
56. (new) The energy management device of claim 55, wherein said energy management device is further operative to encrypt said power management data wherein said power management data comprises first and second portions, said first portion associated with a first decryption key and said second portion associated with a second decryption key, such that said first portion is capable of being decrypted only with said first decryption key and said second portion is capable of being decrypted with said second decryption key.
57. (new) The energy management device of claim 56, wherein said network interface is operative to facilitate communications of said power management data over said network.
58. (new) The energy management device of claim 50, wherein said energy management device is further operative to send a power management command wherein said

power management command includes instructions to perform at least one of a third power management function associated with a third authentication key and a fourth power management function associated with a fourth authentication key.

59. (new) An energy management architecture for managing the flow of energy in an energy distribution system comprising:

a network;

at least one energy management device coupled with a portion of said energy distribution network, each of said at least one energy management device operative to implement at least one power management function in conjunction with said portion of said energy distribution system, said at least one power management function operative to respond to at least one power management command and generate power management data, each of said at least one energy management devices comprising:

a processor operative to process said at least one power management function;

a security module coupled with said processor and operative to encrypt said power management data wherein said encrypted power management data comprises first and second portions, said first portion associated with a first decryption key and said second portion associated with a second decryption key, such that said first portion is capable of being decrypted only with said first decryption key and said second portion is capable of being decrypted with said second decryption key; and

a network interface operative to couple said processor and said network, further operative to facilitate transmission of said encrypted power management data over said network and receive said at least one power management command over said network;

said architecture further comprising:

a power management application coupled with said network and operative to receive and process said power management data from said at least one energy management device and generate said at least one power management command to said at least one energy management device to implement said power management function.

60. (new) The energy management architecture of claim 59, wherein said at least one power management function comprises a first power management function and a second power management function;
wherein said first power management function is associated with a first authentication key and said second power management function is associated with a second authentication key;
wherein said at least one power management command is further operative to instruct said at least one energy management device to perform at least one of said first power management function, said second power management function, or combinations thereof;
wherein said at least one energy management device is operative to respond to said at least one power management command to cause said at least one energy management device to perform said first power management function if said at least one power management command includes said first authentication key and cause said at least one energy management device to perform said second power management function if said at least one power management command includes said second authentication key.
61. (new) The energy management architecture of claim 59, wherein said power management data is received by said at least one energy management device from said network.
62. (new) The energy management architecture of claim 59, wherein said processor is further operative to generate said power management data.
63. (new) The energy management architecture of claim 59, wherein said first portion includes said second portion.

64. (new) The energy management architecture of claim 59, wherein said network interface is further operative to wirelessly couple said at least one energy management device with said network.